

Source Analysis of Citations and Self-Citations of Leading Hospitality and Tourism Journals

Norman Au

School of Hospitality and Tourism Management
Hong Kong Polytechnic University, Hong Kong

Rob Law

School of Hospitality and Tourism Management
Hong Kong Polytechnic University, Hong Kong

Andy Lee

School of Tourism
University of Queensland, Brisbane, Australia

Abstract : In spite of the wide recognition of the importance of citations in the international academic community, virtually no studies examine their source in hospitality and tourism [HT] journals. This paper reports the findings of a study that investigated the sources of citations in 2007 to 2011 for articles published in 2006 in six leading HT journals. Findings show that the citations were mainly drawn from non-HT journals, and that tourism journals received more citations than those in the hospitality field. Although it was not a major issue, the analyzed journals did exhibit certain levels of self-citation.

Keywords : Citation, self-citation, tourism and hospitality journals, Google Scholar

Introduction

The use of citation or impact factors (IF) (i.e. a ratio of number of citations received to number of citable articles) to judge journal quality and assess the contribution of scholarly work has become a trend in recent years (Lopez-Illescas, de Moya-Anegon, & Moed, 2008). This is because when an article is cited often, it normally implies its findings are well recognized by other scholars as having a significant impact in the field of knowledge. While well-established journals tend to have higher self-citing rate (Tsay, 2006), the level of emphasis of using citation as a measure for journal quality does vary from one discipline to another. For instance, on the basis of Google Scholar (GS), top authors in physics, engineering, and medicine commonly received more than 50,000, 40,000, and 147,000 citations, respectively. In contrast, top HT scholars received only around 6,000 citations. On the other hand, Serenk, (2010), for example, concludes that an IF from Thomson Reuters is a necessity for an Artificial Intelligence journal to be identified as at the A or A+ level.

Apart from using citation indices, other methods such as manuscript

acceptance rates, downloads from electronic sources, and expert panels are also used to rate quality of journals (McKercher, Law, & Lam, 2006). McKercher and colleagues subsequently conducted a worldwide survey of 40 tourism and 30 hospitality journals, and ranked them based on composite scores of perceived quality and awareness. Of the journals included in their study, McKercher and colleagues (2006) identify the three leading tourism publications as *Annals of Tourism Research* [ATR], *Tourism Management* [TM], and *Journal of Travel Research* [JTR]; the top hospitality publications are *Cornell Hospitality Quarterly* [CQ] (previously known as *Cornell Hotel and Restaurant Administration Quarterly* until 2008), *International Journal of Hospitality Management* [IJHM], and *Journal of Hospitality and Tourism Research* [JHTR]. These six journals are commonly recognized as the top hospitality and tourism (HT) journals.

The significance of citation indices is more than just serving as one measure for journal quality, but also as an indicator of scholars' influence of their published work on research. In general, there is an assumption that the ranking of journals is closely related to the quality of research papers published in those journals. Publishing one's work in highly-ranked or -rated research journals has therefore and recently become a priority not only for faculty staff but also in many universities and research institutes. Although researchers would like to have their articles published in highly regarded journals, these journals' acceptance rates are often very low. For instance, Perdue, Meng, and Courtney (2009) state that only about 13-14% of submitted manuscripts are eventually published in the *Journal of Travel Research*.

Despite the popularity of citation indices, one should exercise extreme caution when using it for evaluative purpose. More recently, Law, Ye, Chen, and Leung (2009) attempt to identify published articles in HT journals with the highest number of citations. They show that generic topics such as tourist behavior or destination marketing are much more popular than specific topics such as product development or host guest relationship. In other words, certain topics appear to attract more citations than others. An indirect implication is that quality of a paper may not be directly related to the number of citations that it receives.

Another issue that has been widely debated in recent years is self-citation by journals or authors. Self-citing a previous article by the same author(s) or in the same journal may inflate the number of citation counts (McVeigh, 2002). Moreover, self-citations or citations among researchers within a collaborative group may cause bias in citation counts. Jones, Brinn, and Pendlebury (1996) argue that authors' network at various levels, which, in turn leads to potential collaboration and citation opportunities among them.

Kovacic and Misak (2004) also claim that as many as 20% of all citations in certain journals could be authors' self-citations. Specifically, they show that original articles have doubled the percentage of author self-citations compared with review articles. In addition, articles published in highly-cited journals show a smaller proportion of author self-citations than those published in less-often cited journals. Although self-citations may, and probably do, inflate IFs, authors do need to rely on their previous work in a particular area of research, leading to self-citation. Hence, using self-citation as a measure of authorial integrity may be inappropriate.

In view of the growing importance of using journal citation for evaluative purpose in academia, coupled with the absence of prior studies of this topic in the existing HT literature, this study makes an initial attempt to investigate citation sources for the six leading HT journals. In other words, it aims to find out where the citations for published articles in these journals come from, which can provide some clues on the extent of scholars' influence of their research published in specific journals. Another objective is to analyze the extent to which self-citations are made in the leading HT journals. The findings will benefit tourism and hospitality researchers by assisting them with a more realistic set of expectations about the citation counts that an article in a leading HT journal is likely to receive. The multidisciplinary nature of tourism and hospitality meaning faculty staff is likely to have diversified research focuses in an institution. The findings could be useful for them to determine the most appropriate channel to publicize their work in meeting their individual goals. More importantly, editors and publishers of the leading HT journals can formulate competitive development strategies for their journals. The next section reviews the published articles on citations in general, and self-citations in particular. A methodology section then follows, with the subsequent section discussing the findings. The last section summarizes the study and offers suggestions for future research.

Literature Review

Use of Self-citation

In an official report, McVeigh (2004) demonstrates that a generic discipline such as biochemistry has the lowest average rate of self-citation. In contrast, small and narrowly defined categories, like textiles, have a very high average rate. McVeigh argues that there are various reasons for a high self-citation rate. For instance, a journal with a high self-citation rate

may have a novel or highly-specific topic that provides a unique publication venue. Also, a high self-citation rate may result from the journal having few incoming citations from other sources. In addition, sociological factors in the practice of citation may exert an influence, with researchers tending to cite the journals of which they are most aware. Similarly, Aksnes, Schneider, and Gunnarsson (2012) find that internationally co-authored papers tend to have higher citation rates than regionally-authored publications. Also, smaller countries generally have a larger share of internationally co-authored publications. Interestingly, Lopez-Illescas, de Moya-Anegon, and Moed (2008) show that among the top 25% of the sources with the highest IF in Scopus, 94% are indexed by JCR's SCI/SSCI but the corresponding number for the bottom 25% is only 6%.

In the tourism context, Benckendorff (2009) analyzes publications in ATR and TM in 1994 to 2007, and shows that self-citations were present to some extent. The author argues that self-citations can be legitimate in niche areas of research, and also potentially represent good ethical practice by reducing the likelihood of self-plagiarism.

Hyland (2001; 2003), drawing on a cross-disciplinary study of journals in science, engineering, humanity, and business, finds that self-citations consistently account for 10-20% but that they can be positive ways of promoting ideas in research. A publication may help a researcher gain credit, which can be converted into a research grant, generating more data. In other words, self-citation is important as it plays a crucial role in mediating the relationship between writers' arguments and their disciplines.

The number of citations of a researcher's previous work has long been considered as an indicator of academic performance (Falagas & Kavvadia, 2006). In Falagas and Kavvadia's (2006) study, 20% of the references of papers published in the clinical and basic science journals analyzed referred to the authors' previous work. Furthermore, the number of authors is significantly related to the number of self-citations. It is suggested that it is acceptable for an author to refer to his/her previous work, especially if the publications are the result of a series of cumulative efforts in a topic area.

Self-citation and Impact Factor

Anseel, Duyck, De Baene, and Brysbaert (2004) show that approximately 10% of citations in psychology journals are self-citations, so controlling self-citation is not necessary. Interestingly, the IFs of two journals dropped to 0.00 and 0.008 (down from 0.16 and 0.42) after self-citations were re-

moved. Also, authors published in high-impact journals have more opportunities to cite their own work. It is also difficult to determine if a self-citation is unjustified or is a consequence of the cumulative nature of one's own research. Likewise, Epstein (2007) argues that it is easy to manipulate IFs. Self-citations, for instance, can easily increase the value of an IF. Thomson Scientific (currently Thomson Reuters) regards it as acceptable to have a self-citation rate of up to 20%, with anything over that being considered suspicious. An additional factor that can affect IF is for journals to publish only review articles; these journals generally have high IFs. Timing can also affect the value of an IF. A good paper published in January has 11 months longer to be cited than one published in December of the same year. Moreover, editors can publish commentaries on articles in an issue that cite the articles in the same issue. Another way to influence the value of an IF is to encourage correspondence about published articles in the journal, which also cites those articles. Although it is not socially responsible to do so, editors may also publish papers in a well-researched area that contains a serious mistake, and others will then refer to it in their own papers.

Nisonger (2000) analyzes the IFs for library and information science journals as well as genetic journals. Among the sampled journals, library and information science publications had a self-citation rate of 27% and genetic journals of 11.7%. Two of the analyzed library and information science journals even had 100% self-citations. The author suggests it is not necessary to correct for self-citations, although they have a major inflating effect on the rankings of a small number of journals. Kurmis and Kurmis (2010) go on to argue that self-citations may inflate an IF. Moreover, there may be a positive relationship between journal self-citation rates and IFs as indicated by the two journals they analyzed. In other words, the value of an IF directly relates to the self-citation rate.

Minasny, Hartemink, and McBratney (2010) show that self-citation is a common practice in most sciences but differs across disciplines. A high self-citation rate is related to a high IF ranking. They argue that there is nothing wrong with author self-citations as authors develop a body of work and build on their previous results and insights. Interestingly, articles with authors from China and the US show the highest number of self-citations in their study. The authors propose that to boost an IF using self-citations, the number of papers should be low and the number of self-citations should be

high. Also, editorial materials should be excluded from counting as citable articles. Similarly, Frandsen (2007) analyzes different factors that can influence IF, and finds that self-citation rate is a significant factor.

Bouyssou and Marchant (2010) propose a formal approach to evaluate the bibliometric rankings of authors and journals, but without empirical evidence. Using empirical findings, Tsay (2006) investigates the effect of self-citations of semiconductor journals. The results indicate that high self-citing journals usually have a longer history than low self-citing ones. Also, journals with a short time interval (that is, more issues per year) are more likely to have a higher self-citing rate.

Azar (2007) states that the most common method for evaluating the quality of a journal is based on the number of citations received, demonstrating that leading economics journals have a high self-citation rate. Kovacic and Misak (2004) argue that although many citations in medical journals are self-citations, authors need to rely on their previous work to reduce article length. As such, it is not possible to determine the level of authors' integrity using self-citation rates. In other words, an article or author with a high proportion of self-citations cannot be accused of being of lower quality or its author of lacking integrity. More importantly, a highly-cited article, author, or journal with a substantial proportion of self-citations is more visible than a rarely-cited work without any self-citations.

Finally, Flower and Aksnes (2007) interestingly show that the more a researcher cites himself/herself, the more he/she is cited by others. Each self-citation increases the number of citations from others by about one after a year, and by about three after five years. In other words, self-citations induce other citations.

Methodology

The data collection commenced in late December 2011 and continued until early January 2012. ATR was used as a trial journal for checking the sources of citations from GS (<http://scholar.google.com/schhp?hl=en>). At the start, the 70 HT journals listed by McKercher and colleagues (2006) were used as the source. We recorded the number of citations of each ATR publication in the first two issues in 2006, based on GS results for articles published in the period 2007 to 2011. As some of the journals listed by McKercher and colleagues (2006) had since been discontinued, the 54 journals presented in McKercher's (2012) study were used to provide a

more up to date journal list. We summed up the number of citation counts for scholarly articles published in the first two issues of ATR for each of the 54 journals as well as from other sources.

Having thus become familiar with the appropriate process, we then analyzed the six leading HT journals using the same approach; that is, recording the number of times an article published in 2006 (including all citable articles such as research papers, reports, and announcements) was cited in the 54 HT journals and other sources between 2007 and 2011. Law, Lee, and Au (2012) state that a journal article has its highest chance of being cited within the first five years of publication. While research articles receive most citations, other types of articles can, arguably, also be cited. As such, all publications were included in our analysis. For each journal, the following types of data were obtained or computed:

- i. Total number of articles published in 2006;
- ii. Total number of times the articles in (i) were cited in articles published in 2007 to 2011 in each of the 54 HT journals;
- iii. Total number of times the articles in (i) were cited in articles published in 2007 to 2011 from other sources;
- iv. Average number of citations received by each article in (i) from articles published in 2007 to 2011 from the same journal;
- v. Total number of articles published in 2007 to 2011;
- vi. Average number of citations per article for the articles in (v) from the same journal;
- vii. Total number of citation counts received from all sources for the articles in (i);
- viii. Average number of citations received for each article in (i) from the 54 HT journals;
- ix. Average number of citations received for each article in (i) from other sources;
- x. Average number of citations received for each article in (i) from all sources.

The data collection, verification, and organization process ended in May 2012. The next section presents the findings of this study.

Findings

Citations from the 54 journals for the articles published in 2006 in the six leading HT journals are presented in Table 1.

Table 1. Citations of Articles Published in 2006 from HT Journals Published in 2007 to 2011

Journal Title	Total No. of Papers Published in 2007 to 2011	ATR(2006)		JTR(2006)		TM(2006)		IJHM(2006)		CQ(2006)		JHR(2006)	
		No. of Citation Counts	No. of Citations per Paper (2007-2011)	No. of Citation Counts	No. of Citations per Paper (2007-2011)	No. of Citation Counts	No. of Citations per Paper (2007-2011)	No. of Citation Counts	No. of Citations per Paper (2007-2011)	No. of Citation Counts	No. of Citations per Paper (2007-2011)	No. of Citation Counts	No. of Citations per Paper (2007-2011)
Acta Turistica	45	0	0.00	0	0.00	6	0.13	0	0.00	0	0.00	0	0.00
Anatolia	141	10	0.07	13	0.09	31	0.22	5	0.04	0	0.00	2	0.01
ATR	451	205	0.45	30	0.07	102	0.23	1	0.01	5	0.01	5	0.01
APJTR	160	10	0.06	7	0.04	40	0.25	2	0.01	2	0.01	8	0.05
CQ	225	3	0.01	1	0.00	11	0.05	4	0.02	29	0.13	3	0.01
Current Issues in Tourism	192	30	0.16	8	0.04	56	0.29	4	0.02	1	0.01	2	0.01
e-Review of Tourism Research	71	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
EJTR	78	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Event Management	125	5	0.04	3	0.02	6	0.05	0	0.00	0	0.00	1	0.01
FIU	67	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
ITT	123	1	0.01	0	0.00	0	0.00	2	0.02	1	0.01	0	0.00
IJCHM	303	9	0.03	0	0.00	39	0.13	24	0.08	13	0.04	18	0.06
IJCTR	142	6	0.04	11	0.08	19	0.13	1	0.01	0	0.00	0	0.00
IJHTA	93	1	0.01	3	0.03	10	0.11	4	0.04	2	0.02	5	0.05
IJHM	487	20	0.05	11	0.03	91	0.21	100	0.23	28	0.06	39	0.09
IJTP	84	14	0.17	3	0.04	24	0.29	2	0.02	0	0.00	1	0.01
IJTR	242	29	0.12	29	0.12	105	0.43	2	0.01	1	0.00	7	0.03
IJTS	46	1	0.02	1	0.02	2	0.04	0	0.00	0	0.00	0	0.00
IJTR	95	12	0.13	4	0.04	20	0.22	7	0.08	2	0.02	1	0.01
JCEJ	72	7	0.10	10	0.14	14	0.19	1	0.01	1	0.01	1	0.01
JCT	122	0	0.00	0	0.00	0	0.00	1	0.01	0	0.00	2	0.02
Journal of Ecotourism	89	1	0.01	5	0.06	11	0.12	0	0.00	0	0.00	0	0.00
JFBR	132	0	0.00	0	0.00	0	0.00	7	0.05	3	0.02	4	0.03
Journal of Heritage Tourism	158	15	0.09	5	0.03	15	0.09	0	0.00	0	0.00	0	0.00
IJHM	183	13	0.07	24	0.13	39	0.21	12	0.07	8	0.04	8	0.04
IJHT	114	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
IJHTM	76	3	0.04	2	0.03	22	0.29	7	0.09	2	0.03	0	0.00
IJHR	130	5	0.04	11	0.08	24	0.18	11	0.08	5	0.04	21	0.13
IJHM	86	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
IJHSTE	56	4	0.07	1	0.02	1	0.02	1	0.02	1	0.02	0	0.00
IJRHIT	86	1	0.01	0	0.00	4	0.05	5	0.06	2	0.02	0	0.00
IJAHT	85	6	0.07	4	0.05	8	0.09	8	0.09	2	0.02	5	0.06
Journal of Sport and Tourism	127	7	0.06	7	0.06	9	0.07	0	0.00	1	0.01	0	0.00
Journal of Sustainable Tourism	273	43	0.16	3	0.01	59	0.22	6	0.02	0	0.00	3	0.01
JTT	117	2	0.02	1	0.01	2	0.02	2	0.02	0	0.00	0	0.00
JTCC	112	13	0.12	1	0.01	4	0.04	0	0.00	0	0.00	0	0.00
JTCT	67	7	0.10	3	0.04	8	0.12	0	0.00	1	0.01	1	0.01
JTTM	320	31	0.10	38	0.12	89	0.28	10	0.03	6	0.02	17	0.05
Journal of Travel Research	219	53	0.24	71	0.32	76	0.35	2	0.01	4	0.02	3	0.01
IJPTTR	14	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
JVM	134	9	0.07	11	0.08	15	0.11	2	0.01	1	0.01	2	0.01
SJHT	130	14	0.11	5	0.04	26	0.20	3	0.02	1	0.01	0	0.00
Tourism Analysis	300	2	0.01	1	0.00	7	0.02	0	0.00	0	0.00	0	0.00
THPD	114	5	0.04	11	0.10	19	0.17	1	0.01	0	0.00	1	0.01
IHR	127	10	0.08	5	0.04	22	0.17	7	0.06	2	0.02	5	0.04
Tourism Economics	283	19	0.07	38	0.13	66	0.23	8	0.03	4	0.01	6	0.02
Tourism Geographies	151	17	0.11	5	0.03	24	0.16	0	0.00	1	0.01	2	0.01
TJME	78	0	0.00	1	0.01	0	0.00	0	0.00	0	0.00	0	0.00
Tourism Management	789	92	0.12	71	0.09	309	0.39	17	0.02	7	0.01	28	0.04
TRR	172	2	0.01	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Tourism Review	94	7	0.07	6	0.06	32	0.34	3	0.03	1	0.01	0	0.00
TRI	87	2	0.02	3	0.03	1	0.01	1	0.01	0	0.00	0	0.00
TCC	64	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Tourist Studies	79	17	0.22	2	0.03	6	0.08	1	0.01	0	0.00	0	0.00

Note *Source Analysis of Citations and Self-Citations....Norman AU, Rob Law, Andy Lee*

ATR	<i>Annals of Tourism Research</i>
APJTR	<i>Asia Pacific Journal of Tourism Research</i>
CQ	<i>Cornell Hospitality Quarterly (Cornell Hotel and Restaurant Administration Quarterly prior to 2008)</i>
EJTR	<i>European Journal of Tourism Research (first issue commenced in 2008)</i>
FIU	<i>FIU Hospitality (and Tourism) Review</i>
ITT	<i>Information Technology and Tourism</i>
IJCHM	<i>International Journal of Contemporary Hospitality Management</i>
IJCTHR	<i>International Journal of Culture, Tourism and Hospitality Research</i>
IJHTA	<i>International Journal of Hospitality and Tourism Administration</i>
IJHM	<i>International Journal of Hospitality Management</i>
IJTP	<i>International Journal of Tourism Policy</i>
IJTR	<i>International Journal of Tourism Research</i>
IJTS	<i>International Journal of Tourism Sciences</i>
ICTR	<i>Journal of China Tourism Research (first issue commenced in 2008)</i>
JCET	<i>Journal of Convention and Event Tourism</i>
JCST	<i>Journal of Culinary Science and Technology</i>
JFBR	<i>Journal of Foodservice Business Research</i>
JHLM	<i>Journal of Hospitality and Leisure Marketing (re-titled to Journal of Hospitality Marketing and Management in 2009)</i>
JHTE	<i>Journal of Hospitality and Tourism Education</i>
JHTM	<i>Journal of Hospitality and Tourism Management</i>
JHTR	<i>Journal of Hospitality and Tourism Research</i>
JHFM	<i>Journal of Hospitality Financial Management</i>
JHLSTE	<i>Journal of Hospitality, Leisure, Sport and Tourism Education</i>
JHRHT	<i>Journal of Human Resources in Hospitality and Tourism</i>
JQAHT	<i>Journal of Quality Assurance in Hospitality and Tourism</i>
JTTT	<i>Journal of Teaching in Travel and Tourism</i>
JTCC	<i>Journal of Tourism and Cultural Change</i>
JTCT	<i>Journal of Tourism Challenges and Trends (first issue commenced in 2008)</i>
JTMT	<i>Journal of Travel and Tourism Marketing</i>
JUPTRR	<i>Journal of Unconventional Parks, Tourism and Recreation Research (first issue commenced in 2008)</i>
JVM	<i>Journal of Vacation Marketing</i>
SJHT	<i>Scandinavian Journal of Hospitality and Tourism</i>
THPD	<i>Tourism and Hospitality Planning and Development (re-titled to Tourism Planning and Development)</i>
THR	<i>Tourism and Hospitality Research</i>
TME	<i>Tourism in Marine Environments</i>
TRR	<i>Tourism Recreation Research</i>
TCC	<i>Tourism, Culture and Communication</i>

Table 1 lists the number of articles published in the period 2007 -2011 for each of the 54 HT journals, and the number of citations from these articles to the articles published in ATR, JTR, TM, IJHM, CQ, and JHTR in 2006. Table 1 also lists the average number of citations per published articles in the journal. It is interesting to note that the six leading HT journals each published over 100 articles in 2007 to 2011, from 136 articles in JHTR to 789 articles in TM. Another interesting observation is that some journals, such as European Journal of Tourism Research, FIU Hospitality Review, and Journal of Hospitality and Tourism Education had no citation at all in the stated time period.

Table 2 presents the analysis of citations from the same journal.

Journal	Total no. of Citations for Articles Published in 2006 [from Articles Published in 2007-2011]	Total no. of Articles Published in 2006	Average no. of Citations Received by an Article Published in 2006 [from Articles Published in 2007-2011]	Total no. of Articles Published in 2007-2011	Average no. of Citations per Article for the 2007-2011 Publications
ATR	205	87	2.36	451	0.45
JTR	71	48	1.48	219	0.32
TM	309	166	1.86	789	0.39
IJHM	100	49	2.04	437	0.23
CQ	29	37	0.78	225	0.13
JHTR	21	26	0.81	136	0.15

According to Table 2, the six leading journals received an average of 0.81 to 2.36 citations for each of their Year 2006 articles from the same journal. Specifically, ATR and IJHM had more than two citations each; whereas CQ and JHTR received less than one each. The last column in Table 2 shows the average number of citations for the articles published in the period 2007 - 2011. In this measurement scale, all tourism journals had more than 0.3 citations, higher than the corresponding rates for hospitality journals (no more than 0.23).

The information on total and average number of citations from different sources is shown in Table 3.

Table 3. : Total and Average Number of Citations from Different Sources

Journal	Total no. of Citation Counts Received for Publications in 2006 from the 54 Journals Published in 2007 to 2011 (average no. received by an article published in 2006)	Total no. of Citation Counts Received for the Articles Published in 2006 [from Other Sources That Were Published in 2007 to 2011] (average no. received by an article published in 2006)	Total no. of Citation Counts Received for Publications in 2006 from All Sources Published in 2007 to 2011 (average no. received by an article published in 2006)
ATR	763 (8.77)	1558 (17.91)	2321 (26.68)
JTR	469 (9.77)	835 (17.40)	1304 (27.17)
TM	1474 (8.88)	3285 (19.79)	4759 (28.67)
IJHM	274 (5.59)	535 (10.92)	809 (16.51)
CQ	137 (3.70)	166 (4.49)	303 (8.19)
JHTR	201 (7.73)	207 (7.96)	408 (15.69)

In general, the six leading journals received more citations from sources other than the 54 HT journals including but not limited to journals and/or government reports in other disciplines. In particular, TM received more than double its citations from other sources than the HT journals; whereas ATR, JTR, and IJHM each had about twice the number of citations from other sources than the HT journals. In contrast, CQ and JHTR had similar numbers of citations from HT journals and other sources. Moreover, TM received 4759 citations in total but CQ only 303.

As can be seen from Table 3, JTR had the highest number of citations per published articles ($n=9.77$) in HT journals and TM led among other sources with 19.79 citations per article. TM also received the highest average citations per articles ($n=28.67$), when all sources were considered. Hospitality journals, however, received fewer citations per article compared to tourism journals. In particular, CQ had the smallest values of average citations from HT journals, other sources, and all channels ($n=3.7, 4.4, \text{ and } 8.19$).

Finally, **Table 4** presents self-citation rates.

Journal	Total no. of Citations for Articles Published in 2006 [from Articles Published in 2007-2011]	Total no. of Citation Counts Received for Publications in 2006 from the 54 Journals Published in 2007 to 2011	Total no. of Citation Counts Received for Publications in 2006 from All Sources Published in 2007 to 2011	Percentage of Self-Citations in 2006 in the 54 Tourism Journals	Percentage of Self-Citations in 2006 from All Sources
ATR	205	763	2321	26.87%	8.83%
JTR	71	469	1304	15.14%	5.44%
TM	309	1474	4759	20.96%	6.49%
IJHM	100	274	809	36.50%	12.36%
CQ	29	137	303	21.17%	9.57%
JHTR	21	201	408	10.45%	5.15%

The last two columns in Table 4 indicate the percentage of self-citations in the 54 HT journals and from all sources. When only HT journals are considered, the percentages of self-citation ranged from 10.45% (JHTR) to 36.5% (IJHM). These values are not small. However, when all sources are included, the percentage values of self-citation dropped to 5.15% (JHTR) and 12.36% (IJHM), which are more acceptable if HT researchers are seeking to defend themselves from potential criticisms of frequent self-citation.

Discussion

Among the six journals studied here, those concentrating on tourism received more citations per article but also had a higher self-citation rate than hospitality journals. TM was the most popular journal in terms of total and average numbers of citations per article from all sources. ATR, in contrast, received more citations per article if only HT journals were counted. When only hospitality journals were included, IJHM had the largest number of citation counts and average number of citations per article from all sources. JHTR, however, outperformed IJHM in terms of averages when only HT journals were included. Also, there were some variations as most of TM's citations were from non-tourism journals whereas JHTR's citations from both tourism and other publications were more or less the same.

Additionally, about 1.5 times more articles were published in tourism than in hospitality journals over the study period. Tourism journals also received more citations than hospitality journals, both in total and average numbers. Such a difference is likely due to the nature of the tourism field where the scope of study tend to be broader which focus on a country-level or specific destination rather than hospitality establishments. The findings of most tourism studies therefore could well be applicable in many other disciplines, as demonstrated in the large number of citations from non- tourism sources. According to the published values from Thomson Reuters, it is not surprised that the IFs of the leading tourism journals are higher than the corresponding values of leading hospitality publications.

When self-citations were analyzed, all the journals had a rate of more than 10% if only HT journals were counted. These, however, dropped to less than 10% (with the exception of IJHM) when all sources were included. Specifically, ATR and IJHM had the highest self-citation rates among the included HT journals. This phenomenon, as pointed out by Frandsen (2007), may be associated with the profile of the journal and the composition of document types. Some authors may have preferences on a particular journal because it contains published work related to their studies, which could increase their visibility and "intellectual influence" by publishing their work in the same journal. When all sources were included, self-citation does not seem to be an issue for the leading HT journals as

Source Analysis of Citations and Self-Citations....Norman AU, Rob Law, Andy Lee
compared to the other topic areas discussed in the literature review.

Interesting enough, TM had more citations to JHTR (n=24) than JHTR's self-citations (n=21). The same went for JTR, for which TM had 76 citations but JTR itself had 71 self-citations. All other journals, however, received the largest number of citations from the same journals. JHTR had the lowest amount of self-citations in terms both of HT journals and all sources. Further topical analysis for these journals over a longer period perhaps would be useful to draw more insights on what might cause such variation.

Conclusion

With careful interpretation, the findings of this study will be useful in determining the source of citations and the extent of scholars' influences of their published research work in the leading HT journals. As Table 1 shows, the leading HT journals are generally widely cited, both in other HT journals and in other publications. The findings also show, however, that these journals are self-citing, albeit this was at the publication level and no attempt was made to analyze self-citations by author. Although the leading HT journals' rates of self-citation are not a concern when compared to other disciplines, self-citation can be an essential way for authors to avoid repeating the details of previously-conducted experimental setups and/or theoretical models. In other words, self-citations need to be used when details are necessary, but not repeated in the discussion sections of an article.

The study has some limitations, so any attempt to generalize these findings would not be justified. For instance, we included all article types, comprising full-length research articles, research notes, industry perspectives, announcements, book reviews, and conference reports. The inclusion of non-research articles, however, could introduce bias as these articles normally receive only a small number of citations, if any. This, in turn, inflates the number of published articles for some journals, such as CQ, that published many other types of articles rather than solely full papers. Another limitation of this study is the analysis of publications over a single year only. Such a short time span certainly cannot present a comprehen-

sive portrait of the journals studied over the years. It is also unknown where the citations deemed as coming from other sources originated. They could have come from journals, books, conference proceedings, and government reports. As such, the real impact of these patterns remains unknown. Future research efforts could and should address these limitations. This, in turn, highlights the issues among tourism researchers, and opens up further debate about citations and self-citations in HT journals.

References

- Aksnes, D.W., Schneider, J.W., & Gunnarsson, M. (2012). Ranking national research systems by citation indicators. A comparative analysis using whole and fractionalised counting methods. *Journal of Informatics*, 6(1), 36-43.
- Anseel, F., Duyck, W., De Baene, W., & Brysbaert, M. (2004). Journal impact factors and self-citations: implications for psychology journals. *American Psychologist*, 59(1), 49-51.
- Azar, O.H. (2007). Behavioral economics and socio-economics journals: A citation-based ranking. *Journal of Socio-Economics*, 36(3), 451-462.
- Benckendorff, P. (2009). Themes and trends in Australian and New Zealand tourism research: A social network analysis of citations in two leading journals (1994-2007). *Journal of Hospitality and Tourism Management*, 16(1), 1-15.
- Bouyssou, D. & Marchant, T. (2010). Consistent bibliometric rankings of authors and journals. *Journal of Informetrics*, 4(3), 365-378.
- Epstein, D. (2007). Impact factor manipulation. *Journal of the European Medical Writers Association*, 16(3), 133-134.
- Falagas, M. & Kavvadia, P. (2006). "Eigenlob" self-citation in biomedical journals. *The FASEB Journal*, 20(8), 1039-1042.
- Fowler, J.H. & Aksnes, D.W. (2007). Does self-citation pay? *Scientometrics*, 72(3), 427-437.
- Frandsen, T.F. (2007). Journal self-citations - Analysing the JIF mechanism. *Journal of Informetrics*, 1(1), 47-58.
- Hyland, K. (2001). Humble servants of the discipline? Self-citation in research articles. *English for Specific Purposes*, 20(3), 207-226.
- Hyland, K. (2003). Self-citation and self-references: Credibility and promotion in academic publication. *Journal of the American Society for Information Science and Technology*, 54(3), 251-259.
- Jones, M.J., Brinn, T., & Pendlebury, M. (1996). Journal evaluation methodologies: A balanced response. *Omega, International Journal of Management Science*, 24(5), 607-612.
- Kovacic, N. & Misak, A. (2004). Author self-citation in medical literature. *Canadian Medical Association Journal*, 170(13), 1929-1930.
- Kurmis, T.P. & Kurmis, A.P. (2010). Self-citation rates among medical imaging journals and a possible association with impact factor. *Radiography*, 16(1), 21-25.
- Law, R., Lee, A., & Au, N. (2012). Which journal articles are uncited? The case of the *Asia Pacific Journal of Tourism Research* and the *Journal of Travel and Tourism Marketing*. *Asia Pacific Journal of Tourism Research*. doi: 10.1080/10941665.2012.695288

Source Analysis of Citations and Self-Citations....Norman AU, Rob Law, Andy Lee

Law, R., Ye, Q., Chen, W., & Leung, R. (2009). An analysis of the most influential articles published in tourism journals from 2000-2007: A Google Scholar approach. *Journal of Travel & Tourism Marketing*, 26(7), 735-746.

Lopez-Illescas, C., de Moya-Anegón, F., & Moed, H.F. (2008). Coverage and citation impact of oncological journals in the *Web of Science and Scopus*. *Journal of Informatics*, 2(4), 304-316.

Minasny, B., Hartemink, A.E., & McBratney, A. (2010). Individual, country, and journal self-citation in soil science. *Geoderma*, 155(3/4), 434-438.

McKercher, B. (2012). Influence ratio: An alternate means to assess the relative influence of hospitality and tourism journals on research. *International Journal of Hospitality Management*, 31(3), 962-971.

McKercher, B., Law, R., & Lam, T. (2006). Rating tourism and hospitality journals. *Tourism Management*, 27(6), 1235-1252.

McVeigh, M.E. (2002). *Journal Self-Citation in the Journal Citation Reports - Science Edition (2002). A Citation Study from the Thomson Corporation*. Stamford, CT: The Thomson Corporation.

Nisonger, T.E. (2000). Use of the *Journal Citation Reports* for serials management in research libraries: An investigation on journal rankings in library and information science and genetics. *College & Research Libraries*, 61(3), 263-275.

Park, K., Philips, W.J., Canter, D.D., & Abbott, J. (2011). Hospitality and tourism research rankings by author, university, and using six major journals: The first decade of the new millennium. *Journal of Hospitality & Tourism Research*, 35(3), 381-416.

Perdue, R., Meng, F., & Courtney, J. (2009). Publishing in the *Journal of Travel Research*: An assessment of manuscript acceptance and rejection. *Journal of Travel Research*, 47(3), 267-274.

Serenko, A. (2010). The development of an AI journal ranking based on the revealed preference approach. *Journal of Informetrics*, 4(4), 447-459.

Tsay, M. (2006). Journal self-citation study for semiconductor literature: Synchronous and diachronous approach. *Information Processing and Management*, 42(6), 1567-1577.

About the Authors

Norman Au PhD, is an Assistant Professor at the School of Hotel and Tourism Management, The Hong Kong Polytechnic University.

Andy Lee, PhD, is an Assistant Professor at the School of Tourism, University of Queensland.

Rob Law, PhD, is a Professor at the School of Hotel and Tourism Management, The Hong Kong Polytechnic University.

Acknowledgement : The authors would like to thank Thomas Yiu for his help on data collection. This study is partly supported by a grant funded by the Hong Kong Polytechnic University.